

SVX4 Miscellaneous Digital Interface Info

I. Bus Pin Multiplexing Table

| Pin name, Readout mode function | Digitize mode function | Acquire mode function in D0 mode only |
|--|---------------------------------------|--|
| Bus0 | Comp_rst | -- |
| Bus1 | Ramp_rst | -- |
| Bus2 | -- | PRD2 |
| Bus3 | Rref_sel | -- |
| Bus4 | -- | PARST |
| Bus5 | -- | L1A |
| Bus6 | -- | PRD1 |
| Bus7 | -- | CalSR* |

* OR'd with CALSR pad, CalStrobe in Acquire mode, SRclk in Initialize mode

Bond Pad Selections:

USESEU: must be wirebonded, DVDD=use SEU register, DGND=use shift reg
D0MODE: must be wirebonded, DVDD=D0mode, DGND=CDF

External resistors:

Iqui: 7.7k to AVDD
Islope: 36k to GND

TNBR/BNBR:

NMOS open-drain output with 2k internal pull-up; with 2 chips connected, i.e.
BNBR bonded to TNBR, signal at pad is seen to go high when last neighbor
channel (0 or 127) fires.

II. Mode Table

| FE_mode | BE_mode | CDF chip state | D0 chip state |
|----------------|----------------|-----------------------|----------------------|
| 0 | 0 | Initialize | Initialize |
| 0 | 1 | -- | Acquire |
| 1 | 0 | Acquire & Readout | Readout |
| 1 | 1 | Acquire & Digitize | Digitize |